Memorandum

Date   **JAN 15 2004**

From   Chief Operating Officer, CDC

Subject   Decision on Public Health Informatics Improvements at CDC/ATSDR--ACTION

To   Director, CDC

This decision document is presented to you as a recommendation of the Centers for Disease Control and Prevention (CDC) Management Council developed through substantial collaborations with the CDC Information Council and previous discussions of the Executive Leadership Team (ELT) and a working group of the ELT. The application of information technology in the pursuit of public health, i.e., public health informatics, has continued to grow dramatically and is increasingly essential to a breadth of public health activities including emergency preparedness and response. While there are notable CDC informatics achievements over the years, a more aggressive approach to integration is now required to achieve needed outcomes.

The issues and recommendations presented below strongly embrace the respective roles and responsibilities of the central enterprise organization, the Information Resources Management Office (IRMO), and the various programs throughout the agency. The intent of the recommendations is to ensure the improved outcomes through bidirectional planning, process transparency, accountability, measurement, and interdependence.

Background - There are both critical needs and significant benefits that call for the improved strategic application, integration, and consistency of public health informatics at CDC and nationally. A focused investment in the consistent application of public health informatics will be critical to addressing issues related to the Public Health Information Network (PHIN) and taking advantage of new opportunities. Moving more rapidly to achieve this vision cannot be at the expense of our core public health mission, yet it is clear that we have not progressed as far as we should. The immediacy of preparedness concerns requires that we raise the priority of this work.

The issues and recommendations presented below result from the document "Framework for Improving CDC's Public Health Informatics Program" dated October 28, 2003, which served as the initial discussion foundation with the Executive Leadership Team, the CDC Information Council, and the CDC Management Council.

Issue 1: IT Governance and Management

There is broad recognition of the importance of informatics in the future of public health and CDC and there is a need for more direct ELT involvement to ensure, among other things, that public health systems are strategic, compatible/compliant with PHIN standards,

sufficiently address preparedness needs, and that central informatics resources provide appropriate services to meet enterprise needs, achieve integration, and ensure security. Subject matter experts often are not sufficiently able to address the IT issues and IT staff are often not sufficiently knowledgeable of the subject matter. We need to bridge these gaps. Several governance models exist at CDC, e.g., the Management Council, the genetics and the Executive Resources Boards, and the Excellence in Science Committee. Informatics governance should leverage aspects of several of these.

Recommendation:

- **Establish a new CDC Informatics Executive Committee (IEC).**

    The IEC shall consist of select CIO Directors (3), Management Council members (2), senior informatics representatives (2), and members of the CDC Office of the Director (4). The IEC will replace the CDC Information Council Executive Committee and advise on issues and processes noted below, ensure progress on CDC IT system standards, foster cross-CIO interactions, and provide periodic reporting to the CDC Director and full ELT. The CIC will report to this new Informatics Executive Committee although the CIC functions and structure may be modified based on the priorities and needs identified by the IEC and the existing CIC.

Issue 2: New CDC public health information system acquisition and development

New systems must be planned and implemented as PHIN compliant to harness the value of standards to support distributed systems development. Successful and well integrated systems that are purchased and/or developed in a distributed setting need to use a consistent CDC planning, development, and integration process.

Recommendation:

- **Establish a CDC Unified Process (CDCUP) to be jointly developed and managed by CIOs and IRMO. Require all new CDC supported systems to actively use CDCUP. Advance the specificity and clarity of the PHIN standards as a key component of this process and the other informatics activities identified in this document. Requested exceptions to these standards shall be considered by the IEC.**

    The CDCUP will include processes and development products that will be common to all CDC systems including, registration in an enterprise systems catalog for capital planning purposes, common requirements documentation and standard processes for system development, systems security, and operations. Registration of all projects in their planning stages will be the starting point for implementing the common CDCUP. Standardized software development and integration is an industry best practice for achieving improved development outcomes, better systems interoperability, greater reliability, and reduced risks. By engaging early with this best practice, the intent is to support distributed development in the CIO and, at the same time, address interoperability issues before they become a problem. IRMO will have responsibility for ensuring that there is a single point of contact for actively assisting CIOs in

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working with all central IT resources for planning, developing, testing, securing, and implementing new systems. IRMO will provide consultation and support to help CIO staff ensure that CDC IT policies and PHIN standards are built in from the start, when their inclusion can be most easily achieved.

There may be times and/or systems for which PHIN compliance or even compatibility is not feasible. For these occasions, an exception process will be developed so that there can be the careful consideration of evaluating potential exceptions to the application of specific policies and standards. PHIN standards exceptions and others will be addressed on a case by case basis. Requests for exceptions to the IEC will follow a process to be established.

In addition, the existing PHIN standards need to be advanced, refined, and expressed in terms that can be understood by varied audiences. These steps should help improve the adoption of the standards. A CDC-wide working group shall be established to help advance the PHIN standards by no later than 30 days after this memorandum is signed. Specific compliance factors and tests will also be developed and published to improve compliance outcomes.

Issue 3: **Existing CDC and CDC-sponsored public health systems**

CDC currently has several hundred public health systems and achieving PHIN compliance for existing systems will be more complex than for new systems. However, the urgency and criticality of emergency preparedness and response-related systems is an overriding consideration.

Recommendation:

- **Existing preparedness-related systems shall be made PHIN-compliant and system owners are required to develop a compliance plan by April 30, 2004. PHIN standards shall also be applied to all non-preparedness-related public health systems at the time of a significant system modification. Requested exceptions shall be considered by the IEC.**

All existing systems need to be registered in the CDC enterprise systems catalog and use the planned CDC Unified Process for ongoing maintenance and significant system modifications.

All registered systems will be reviewed and the IEC will be briefed with findings and recommendations. The IEC will also help develop specific metrics for evaluating progress and will participate in prioritizing systems for early integration and PHIN compliance. The owning CIO will be ultimately responsible for supporting remediation needs for projects that have not yet achieved compliance.

For non-preparedness-related systems, PHIN compliance must be achieved as the systems undergo significant modification defined as: developmental effort costing over $100K in a year, significant system upgrade, change in platform, or major rewrite of the software.

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The same exception process identified earlier will be used to address polices and standards which may not be applied to specific systems because of major technical obstacles, irresolvable limits of commercial or externally developed software, and for systems nearing the end of their lifecycle.

Issue 4: Cooperative agreements/contracts that support information technology development for public health

CDC's funding of public health information systems and information technology infrastructure nationally through extramural grants has grown dramatically in the last several years. Ensuring national public health integration and interoperability requires that such investments be done in accordance with national standards.

Recommendation:

- **All grants, contracts, and cooperative agreements that include funds for IT development and systems support shall include standard language that indicates the work will need to be done in a way that is compliant with PHIN standards and applicable CDC IT policies.**

    The PHIN standards have been approved as agency wide by the CDC Information Council, which includes representation from ASTHO, NACCHO, CSTE, and APHL. They have been deemed to be required standards by HHS for all IT expenditures supported through the CDC and HRSA Bioterrorism cooperative agreement supplements. The same exception process as noted earlier will be applicable where evidence of conflicting standards or policies of other localities or countries that are relevant to the system may identify the need for an exemption to a specific standard or policy.

Issue 5: Overall Leadership and Coordination of the PHIN initiative

PHIN is CDC's strategy for making all public health information systems interoperable. Certain systems and initiatives need to be tightly coordinated to meet pressing public health preparedness objectives. It is also important that CDC have a clear focus for preparedness IT architecture and point of responsibility. There are also cross-CIO systems issues that are difficult for individual CIOs to identify or resolve.

Recommendation:

- **PHIN shall be led by the CDC Associate Director for Informatics, which includes strategy and fiscal stewardship over PHIN-related systems and components.**

    This recommendation includes the informatics and information technology components of systems that have been previously named as part of PHIN and others that are central to its preparedness functioning. It includes responsibility for the National Electronic Disease Surveillance Systems (NEDSS) and Health Alert Network (HAN) initiatives and the informatics and information technology

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components of the Epidemic Information Exchange (Epi-X), Epi Info, NETSS, the Laboratory Response Network (LRN), the Environmental Health Tracking Network (EHTN), the National Health Care Safety Network (NHSN), BioSense, vaccination-related systems activities, the geographic information system (GIS), and internal and external terrorism preparedness and response programs.

Funding for the informatics and IT aspects of these components will be allocated to IRMO and that office, in turn, will work with the respective CIOs to ensure that the effort supports the needs of other CIOs and public health preparedness. Funding allocated to the CIOs to carry out supported activities will be done in accordance with an approved spending and management plan and in concert with PHIN standards and strategies. IRMO will work with those responsible for the programmatic aspects of each activity to develop spending plans, determine strategies, set standards, make technology choices, and establish guidance and direction for extramural partners. IRMO, in concert with CIOs that have PHIN-related systems, will establish the information requirements and process measures needed to ensure that this process runs timely, smoothly, and focus on strategic aspects to minimize disruption of project milestones. All service contracts and task orders for these efforts that include IT activities will be co-led by the CIO and IRMO. It is critical that the structure ensure a collaborative and customer-focused strategy for the resource investments (customers being both the internal customers and our partners external to the agency). As such, IRMO will express the resources and services that will be made available to the CIOs with PHIN-related systems to accomplish these goals. The IEC and ELT, as needed, will be briefed on the progress of PHIN-related systems and components with respect to budget, time, and scope. Strategies will include establishment of a team comprised of select detailees from key CIOs for 45 to 60 days to develop project plans.

Issue 6: Focused agency-wide efforts are required to achieve the critical public health informatics outcomes identified

Currently, there is no central focus for enabling the leadership and services required to achieve the outcomes noted in these recommendations. Hence, the agency needs to commit the resources to enable successful achievement of these recommended changes.
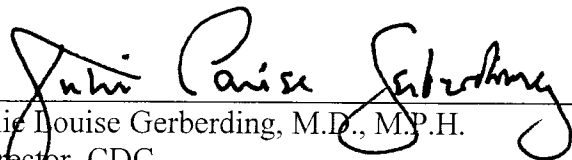
Recommendation:

- **In FY 2004, IRMO will be allocated $10M and 15 FTEs in new resources.**

  The activities in this document will require capacity in IRMO to support CIO needs and meet CDC enterprise informatics goals. Key issues include meeting CDC-wide informatics objectives and assisting CIOs through the processes identified above. Both will require new resources this fiscal year. Allocation, project, and spending plans for how these resources will be invested and what will be achieved will be developed. These plans would be presented to the IEC and ELT.

Please indicate your concurrence or non-concurrence and signature in the space provided.

Decisions

	Concur	Non-concur
Recommendation 1	✓	
Recommendation 2	✓	
Recommendation 3	✓	
Recommendation 4	✓	
Recommendation 5	✓	
Recommendation 6	✓	

Julie Louise Gerberding, M.D., M.P.H.
Director, CDC

Date 1/15/2004

William H. Gimson, M.B.A.